



396522

## PRE-CERCLIS SCREENING (PCS) ASSESSMENT CHECKLIST/DECISION FORM

The checklist can be used to assist the site investigator during Pre-CERCLIS screening. This checklist should document the rationale for the decision as to whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

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Name/Title

September 23, 2003  
Date

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**Site Name:** G. A. Avril Smelting Corp.

**Previous names (if any):** \_\_\_\_\_

**Site Location:** 4445 Kings Run Drive, Cincinnati, Ohio / Hamilton County  
(See attached description and maps).  
4435 Este Avenue B&ORR

**Latitude: (if applicable)** 39° 06-10.1 **Longitude:** 84° 30-28.0

### PHASE A - CERCLA Eligibility Evaluation

If the answer to any one of these is yes, the sites can be NFRAPed or Archived		YES	NO
1. Is the site non-existent, or is it not a duplicate (or "alias") of another site?	X		
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?			X
3. Are the hazardous substances potentially released at the site excluded statutorily (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC< UMTRCA, or OSHA)?			X
4. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferred to RCRA Corrective Action, FIFRA, or Brownfields)?			X
5. Is there insufficient data (provided by the State) to verify that a release has occurred (e.g., based on potentially unreliable sources or with no information to support the presence of hazardous substances or CERCLA eligible pollutants and contaminants)?			X
6. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARS, completed removal action, previous HRS score determined, or an EPA approved risk assessment completed)?			X

## PHASE B - INITIAL SITE EVALUATION

Use Exhibit A to make site assessment decisions based on the answers below:

	YES	NO
Is there documentation indicating that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		X
Is there an apparent release at the site with no documentation of exposed targets, but there are targets on-site or immediately adjacent to the site?		X
Is there an apparent release and no documented on-site targets, but there are nearby targets (e.g., targets within 1 mile)?		X
Is there indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on-site or in proximity to the site?		X
Documented onsite or nearby targets?		X
Uncontained sources containing CERCLA eligible substances are present on site.		X
There are releases or potential to release.		X

Please explain all yes answer(s). See Attached Narrative

### EPA Regional Review and Site Assessment Decision

Check the box(es) that apply:

- ☒ NFRAP/Archive DO NOT ENTER INTO CERCLIS, NOT A VALID SITE OR INCIDENT.
- ☐ APA
- ☐ Full PA
- ☐ Combined PA/SI
- ☐ SI

Defer/Refer to:

- ☐ Removal Program
- ☐ State/Tribal Program
- ☐ RCRA
- ☐ Brownfields
- ☐ Other: \_\_\_\_\_

Regional EPA Reviewer:

LAURA RIPLEY Laura Ripley  
Print Name/Signature

9/29/2003  
Date

## **Introduction**

In the spring of 2001, the *American Public Health Journal* published a report on former lead smelting facilities that are potentially contaminated with high levels of lead. The study, which was conducted by a doctoral candidate and a USEPA employee, cited 430 former lead smelting facilities in 35 states that are unknown to federal and state authorities. Of the sites listed, 17 are located in Ohio. This PCS focuses on one of these sites, the G. A. Avril Smelting Corporation.

High levels of Lead Contamination are a major problem for the City of Cincinnati and its surrounding cities. Lead Contamination reaches as far as North to Hamilton, Ohio and south to the Cincinnati /Kentucky borders and the Ohio River. There are more than 27 zip codes in the Cincinnati area. The City of Cincinnati uses the zip codes to mark high Lead areas. Currently, the City of Cincinnati is conducting a Lead Soil Abatement for Project. This study includes cities like Boston, Baltimore, Cleveland, and Cincinnati Lead soil contamination. In certain areas in the City of Cincinnati, results showed high Lead contamination which has made the Ohio Department of Health (ODH) and the Cincinnati Health Department test the children for high lead levels. The University of Cincinnati is currently doing studies on particular neighborhoods.

## **Site Description**

The G. A. Avril Company was located at 4435 Este Avenue is currently in operation at 4445 Kings Run Court in Cincinnati Ohio. This 1.341 acre lot operates a light manufacturing owned by Thomas and John Avril. It is surrounded by a cascade of businesses that are also medium and light manufacturers. At the west border is the B&ORR, which is now owned by CSX Railroad. There are other medium manufacturing businesses on the east and south borders. The north border is the street itself, Kings Run Court. See Figure 1, the Site location Map.

## **Site History**

The G.A. Avril Smelting Corporation, site was established in 1924. They produced Brass and Bronze Ingots, lead-free wire solder, custom castings, babbitts, tin & antimony alloys. In 1953, they opened a second division to their corporation, the Lead Products Division. In the second division, they produce lead pipe, plumbing fittings, <sup>solder</sup> solders babbitts, plating anodes, sheet lead, and lead wool. The Ohio EPA Field Staff conducted a Site Reconnaissance January 8, 2003 at the 4445 Kings Run Court address. On that day an interview was conducted with Mr. John Avril, at that time, Mr. Avril stated "the Avril Corporation has never used any lead products." On June 24,

2003, the Ohio EPA Field Staff conducted field sampling events to collect soils and to verify if the soil is contaminated with lead. Four (4) soil samples were collected and screened by the Ohio EPA's X-Ray Fluorescence (XRF) screening instruments. The Sample Location map can be seen on Figure 2.

## Pathways & Targets

### Soil Pathway

The method for collecting the soil samples, were collected by using dedicated stainless steel materials (spoons, pans, and plastic bags) for each sample location. Samples were collected from the zero through to six inches of soil into a 11-inch stainless steel mixing bowl. When grass was present, the Sampler pulled back the immediate top layer of sod and shook the loose soil from that section. The Sampler collected the top three-inch soil into the mixing bowl. The soils were homogenized in our mixing bowl and then packed away into a labeled "Zip-Lock" plastic bag.

Four (4) soil screening samples were taken on and around the 4445 Kings Run Court property. There are no potential contaminated sources within 250 feet of the property. The screening instruments used to verify the presence of Lead Contamination was the Ohio EPA's X-Ray Fluorescence (XRF) screener. The Chief XRF operator took small aliquot of soil from each sample to verify if Lead was present. If so, these samples are to be sent to Kemron Laboratory for confirmation. At Kemron, the soil samples will under go analysis for 8 RCRA's metals. The (RCRA) acronym means, Resource Recovery Reclamation Act. The "eight (8) RCRA metals" are, arsenic, barium, cadmium, chromium, **lead**, mercury, selenium, and silver.

Four (4) soil samples were taken Inside and Outside the 4445 Kings Run Court property on June 24, 2003. They are abbreviated as GAA-1 thru GAA-4. The initial's abbreviation stands for G.A. Avril (GAA). GAA-1; Silty & Loamy Sand, was taken at the northwest corner of the property in between the building and B&ORR tracks. GAA-2: Silty & Loamy Sand, was collected at the southwest corner of the Avril building and rear fence. GAA 3 & 4; Sandy Clay, was collected at Springrove Avenue at the U-Haul storage building. Sample four is a duplicate of three and serves as background. See Table one (1) for XRF screening results.

### **Sediment Pathway**

The pathway for Sediment was not addressed as an issue of concern. Therefore, no Sediment Samples were collected.

### **Surface Water Pathway**

The pathway for Surface Water was not addressed as an issue of concern. Therefore, no Surface Water Samples were collected.

### **Ground Water Pathway**

The pathway for Ground Water was not addressed as an issue of concern. Therefore, no Ground Water Samples were collected.

### **Air Pathway**

The pathway for air was not addressed as an issue of concern. The site is covered with large stone, cement, and black top; therefore, no air samples were collected.

### **Conclusions**

Lead contamination exists throughout the City of Cincinnati. Based on the William Eckel's doctorate dissertation and research, the City of Cincinnati Lead Abatement Study, and the investigation conducted by the Ohio EPA's Site Investigations Field Staff. The G. A. Avril Corporation, located at 4435 Este Avenue and 4445 Kings Run Court was identified as a Lead Smelter operator. From 1924 until this present day and time, the 4445 Kings Run Court property operates a lead free smelting operation. The Ohio EPA's XRF Screener did identify lead contamination in the Soil, but there are no children, residence, schools, or churches within 250 feet of the site. In light of these aforementioned facts, no further site investigation is necessary.

**LIST OF**  
**FIGURES, TABLES and ATTACHMENTS**

Figure One Site location Map

Figure Two Sample location Map

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Table One Field Screening Sampling Results – Soil – XRF Metals

Table Two Kemron Laboratory Results – Soil – Confirmation

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Attachment One Photo Log

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References

**Table One**

**The G.A. Avril Smelting Corporation  
 XRF Field Soil Screening Data for Metals**

XRF ANALYTE		arsenic As	barium Ba	cadmium Cd	chromium Cr	mercury Hg	lead Pb	selenium Se	silver Ag
Sampling Date	June 24, 2003	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg
Site Name / location Kings Run Court	GAA1 NW-- corner of Bldg	144/42	537	-----	-----	-----	2246	16/11	-----
Site Name / location Kings Run Court	GAA-2 SW-- corner of Bldg	-----	488	400/120	230	-----	14360	-----	-----
Site Name / location Spring Grove Rd	GAA-3 U-Haul Side Walk	22/18	412	-----	-----	-----	351	17/10	110/35
Site Name / location Duplicate of #3	GAA-4 U-Haul Side walk	35/20	417	-----	-----	-----	351	-----	-----

**Table Two**

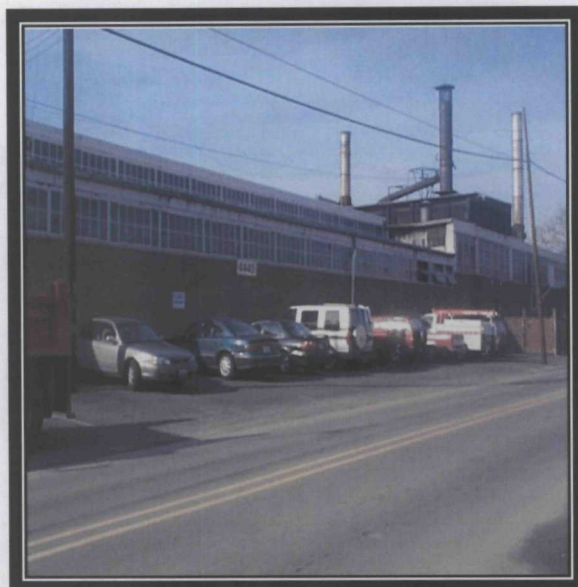
**The G.A. Avril Smelting Corporation  
 Lead Confirmation  
 Kemron Analytical Data for Soil Metals**

XRF ANALYTE		arsenic As	barium Ba	cadmium Cd	chromium Cr	mercury Hg	lead Pb	selenium Se	silver Ag
Sampling Date	June 24, 2003	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg	PPM or mg/kg
Site Name / location Kings Run Court	GAA-1 NW Corner of Bldg	10.93	113	32.8	24.1	-----	1460	-----	2.90
Site Name / location	GAA-2 SW corner of Bldg	19.5	205	99.2	127	-----	17400	-----	20.9

**ATTACHMENT ONE**  
**PHOTO LOG**



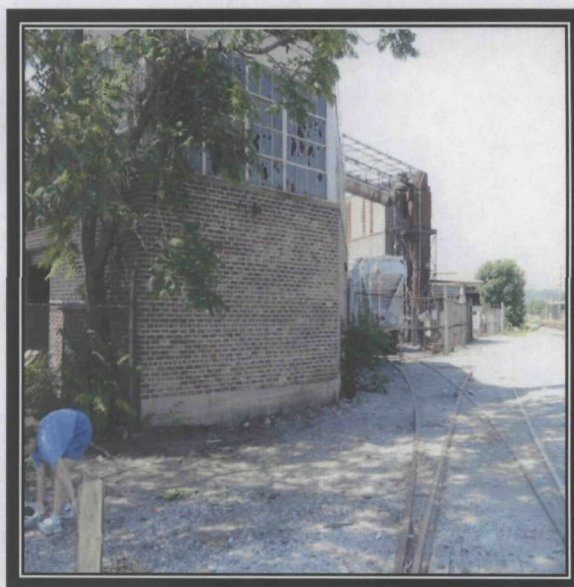
January 8, 2003 Recon; this is the front Entrance and parking lot at 4445 Kings Run Court.



January 8, 2003 Recon; this is the front Entrance and parking lot at 4445 Kings Run Court.

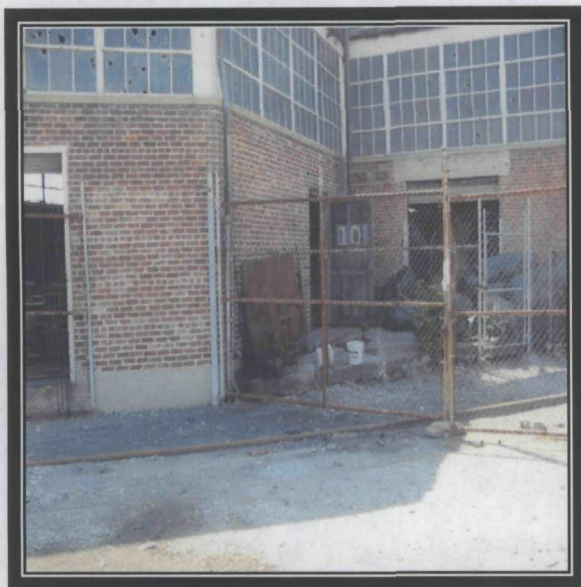


June 24, 2003 Soil Sampling at G.A. Avril; Sample location GAA-1. The NW corner of the Bldg and Kings Run Ct.



June 24, 2003 Soil Sampling at G.A. Avril; Sample location GAA-1. This is a view from the street of NW corner of Bldg and the B&ORR.





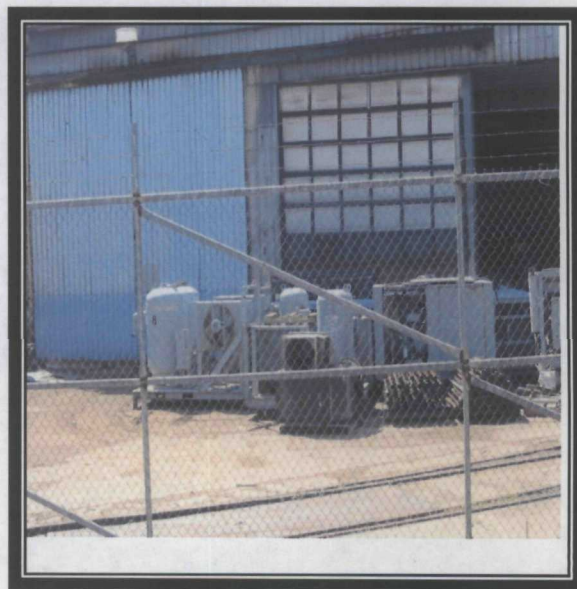
Sample location for GAA-2; this was the SW corner of main Bldg.



Sample location for GAA-2; this was the SW corner of main Bldg. The actual sample was collected 1.5 ft., under this fence and gate.

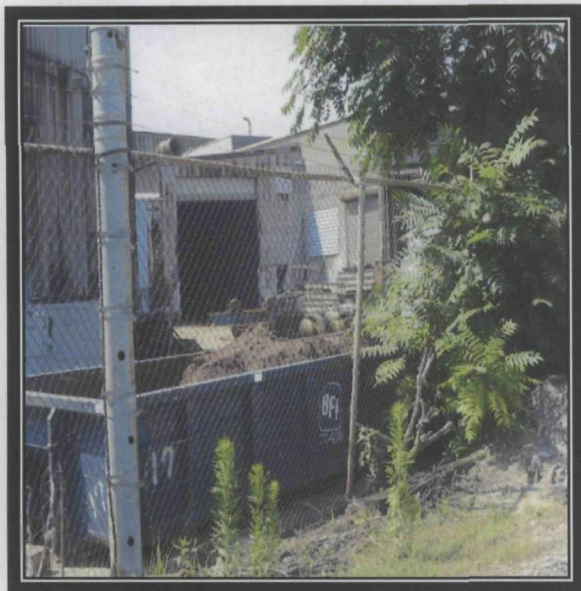


June 24, 2003; This is the south section of the Avril property. There are four separate building that was observed on this Campus. This also lies between the B&O RR tracks.



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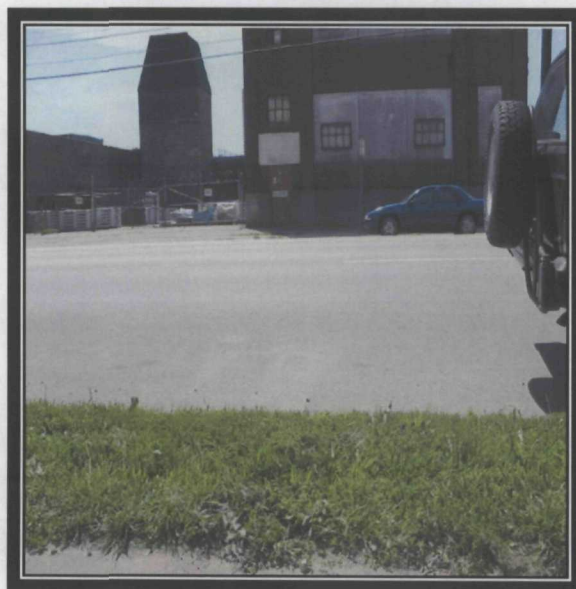




June 24, 2003; This is the south section of the Avril property. There are four separate building that was observed on this Campus. This also lies between the B&O RR tracks.



Sample location GAA-3&4 June 24, 2003; The samples were collected at the U-Haul Storage and Sidewalk at Spring Groves Ave.



Sample location GAA-3&4 June 24, 2003; The samples were collected at the U-Haul Storage and Sidewalk at Spring Groves Ave.

## **REFERENCES**

**APHJ, 2001:** Journal article entitled "Discovering Unrecognized Lead-Smelting Sites by Historical Methods"; written by William P. Eckel, Michael B. Rabinowitz & Gregory D. Foster; 91:625-627' published in the American Public Health Journal in April of 2001 edition; Washington, D.C.

**Eckel, 2001:** Doctoral dissertation by William P. Eckel; completed in the Summer Semester of 2001; College of Arts & Sciences at George Mason University; Washington, D.C.

**Eckel, 2001:** Historic site information provided William P. Eckel from: Metal Smelters & Refiners section of Standard Metal Directory (SMD) directories for 1931, 1904, 1946, 1950 & 1963; Metal Statistics (MS), an annual publication (1937 - 1969) of The American Metal Market Company, published by Diversified Publishing of New York City, NY; and , the Year Book of the American Bureau of Metal Statistics (and later the Non-Ferrous Metals Data) [ABMS] from the American Bureau of Metal Statistics Inc., 1945-1973, of New York City, NY

**Eckel, 2003:** Information directory from William "Bill" Eckel; Telephone conversation, mail and/or E-mail between Wendy Vorwerk and/or Edward Link of the Ohio EPA; Mr. Eckel's phone # is (703 305-6451) is currently employed by the USEPA in the Environmental Fate and Effects Division of the Office of Pesticide Programs Located on Washington, D.C.

**Mapquest, 2002:** Online mapping, Color Air Photos and Yellow Pages taken off the Mapquest Internet site, <http://www.mapquest.com>. Mapquest, a wholly owned subsidiary of America Online, Inc. and based in Denver, CO and Mountville, PA; GlobeXplorer™ Color Air Photos of Cincinnati, Ohio dated June 2002.

**ODH, 2002:** Ohio Department of Health; Bureau of Environmental Health; Health Assessment Section; Lexington Manor Site

**ODH, 2002:** Ohio Department of Health; Ohio Childhood Lead Poisoning Prevention Program; <http://www.odh.state.oh.us> Lead and Eating Healthy; Lead Can Harm Children; and Children's Lead Levels

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**Hamilton County General Health District;** Lead Screenings; Did you know that lead poisoning is invisible and 100% preventable? Have your children tested for lead, even if they seem healthy? December 1992 GMT <http://www.hamilton-co.org/boh/nursing.htm>

**Hamilton County General Health District;** The Lead abatement grant will provide \$350,000 to all involved parties and will give older communities in the County an opportunity to detect possible lead problem in homes that have children under six living in them. January 2002 GMT [http://www.hamilton-co.org/boh/minutes/feb\\_01.htm](http://www.hamilton-co.org/boh/minutes/feb_01.htm)

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**Hamilton County General Health District;** Short term exposure can lead to nausea, shortness of breath, severe headaches, and fatigue. August 2002 GMT [http://www.hamilton-co.org/boh/press%20releases/press\\_...](http://www.hamilton-co.org/boh/press%20releases/press_...)

**Sanborn, various years:** Sanborn Fire Insurance Maps from the Sanborn Map Company from various years from 1886 through 1960; attained from the On-line Research Databases of the Ohio Public Library at the Ohio Historical Society; Columbus, Ohio 2002-03. [Http://www.oplin.lib.oh.us/products/SanbornMaps/index.cfm](http://www.oplin.lib.oh.us/products/SanbornMaps/index.cfm)

**SMD, 1963:** Metal Smelters & Refiners Section, Babbitt & Solder Manufacturers section, Scrap Iron & Metal Dealers section of Standard Metals Directory (SMD) directory 1963; New York City, NY; attained from the main Library at the Ohio State University in Columbus, Ohio.

**USEPA:** Guidance for Performing Preliminary Assessments Under CERCLA; Washington, D.C., September 1991.

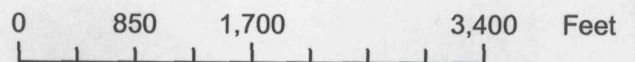
**USEPA:** Hazardous Ranking System Guidance Manual; Washington, D.C., November 1992.

**Ohio EPA-DERR, 2003:** site reconnaissance in January 2003; Division of Emergency & Remedial Response (DERR) at the Central Office in Columbus, Ohio





G. A. Avril Company  
 Site Location Map  
 Figure 1







G. A. Avril Company  
Sample Location Map  
Figure 2

0 330 660 1,320 Feet